

**AMENDMENTS TO THE SPECIFICATION**

Please amend the specification as shown below.

Please amend the paragraph beginning on page 16, line 19 and continuing on page 17 with the following amendment paragraph:

FIG. 14A explains that a light beam will be irradiated to the to-be-annealed object  $[(n + i)]$   $(n - i)$  times when the area where a column and adjacent column overlap each other is [larger] smaller than a predetermined area and FIG. 14B explains that a light beam will be irradiated to the to-be-annealed object  $[(n - i)]$   $(n + i)$  times when the area where a column and adjacent column overlap each other is [smaller] larger than the predetermined area.

Please amend the paragraph beginning on page 17, line 3, with the following amended paragraph:

FIG. 15 shows a relation among angles of rotation  $\alpha$ ,  $\beta$  and  $[Y]$   $\gamma$  and a relation between the angle of rotation  $[Y]$  of the rotating shaft and number of times of irradiation to the to-be-irradiated object, in which FIG. 15A shows a relation among the angles of rotation  $\alpha$ ,  $\beta$  and  $[Y]$   $\gamma$  [and a relation among  $\alpha$ ,  $\beta$  and  $\gamma$ ] and FIGS. 15B and 15C show a relation between the angle of rotation  $[Y]$  of the rotating shaft and number of times of irradiation to the to-be-irradiated object.

Please amend the paragraph beginning on page 29, line 19 and continuing on page 30, with the following amended paragraph:

The laser annealing apparatus 1 constructed according to the present invention as above functions as will be described below. It should be noted that the laser annealing apparatus 1

anneals the to-be-annealed object 2 by irradiating the light beam to the entire main surface of the to-be-annealed object 2  $n$  times [ $(n > 0_0)$ ]  $(n > 0)$ .

Please amend the paragraph beginning on page 36, line 19, with the following amended paragraph:

The  $I$  times-irradiated region 31 has been irradiated with the light beam when the angle of rotation of the rotating shaft 7a is within a range from  $[-2\gamma$  to  $+2\gamma]$   $-\gamma$  to  $+\gamma$ .

Please amend the paragraph beginning on page 36, line 21, and continuing on page 37 with the following amended paragraph.

Also, one of the  $i/2$  times-irradiated regions 32a and 32b has been irradiated with the light beam when the angle of rotation of the rotating shaft 7a is within a range from  $[+2\gamma$  to  $+2\beta]$  to  $+\gamma$  to  $+\beta$ , and the other region has been irradiated with the light beam when the angle of rotation of the rotating shaft 7a is within a range from  $[-2\beta$  to  $-2\gamma]$   $-\beta$  to  $-\gamma$ .

Please amend the paragraph beginning on page 37, line 9, with the following amended paragraph:

When the controller 9 controls the solid-state laser 4 to make the pulse-on or -off operation as above, the moving stage 3 is moved over a distance [longer] shorter than  $iL_1/n$  in the predetermined-distance moving direction, whereby a region where the overlapping columns 33 count  $n/i + 1$  will be irradiated with the light beam  $n+i/2$  times. Further, since the moving stage 3 is moved over a distance [shorter] longer than  $iL_1/n$ , a region where the overlapping columns 33 count  $[i - 1] \underline{n/i - 1}$  will be irradiated with the light beam  $n - i/2$  times. Therefore, the error with respect of the number  $n$  of times of light beam irradiation to the whole to-be-irradiated object 2 can easily be reduced to  $\pm i/2$  times.

Please amend the paragraph beginning on page 38, line 2, with the following amended paragraph:

When  $n = 4$ , for example, with the above-mentioned conditions, the moving stage 3 is moved over a distance of  $L_1/2$  in the predetermined-distance moving direction. When the moving stage 3 is moved over a distance [smaller] larger than  $L_1/2$  in the predetermined-distance moving direction, a region irradiated three times will take place on the to-be-annealed object 2 as shown hatched in FIG. 17A. On the other hand, when the moving stage 3 is moved over a distance [larger] smaller than  $L_1/2$ , a region irradiated 5 times will occur on the to-be-annealed object 2 as shown hatched in FIG. 17B. Therefore, the error of number of times of light irradiation to the to-be-annealed object 2 will be  $\pm 1$ . It should be noted that FIGS. 17A and 17B schematically illustrate the relation between a position on the to-be-annealed object 2 in the predetermined-distance moving direction and number of times of light beam irradiation and the number of squares in the direction of arrow z in FIGS. 17A and 17B indicate a number of times of light irradiation.

Please amend the paragraph beginning on page 39, line 14 with the following amended paragraph:

Note that  $\gamma$  is determined based on the ratio between the length, in the predetermined-distance moving direction, of the  $j$  times-irradiated region 31 and those, in the predetermined-distance moving direction, of the  $i/2$  times-irradiated regions 32a and 32b. For example, when the ratio between the length, in the predetermined-distance moving direction, of the  $j$  times-irradiated region 31 and that, in the predetermined-distance moving direction, of one (32a) of the  $i/2$  times-irradiated regions is R,  $\gamma$  is determined by solving  $[2\beta/\gamma = R] \underline{2\gamma(\beta-\gamma)}$ .

Please amend the paragraph beginning on page 43, line 21 and continuing on page 44 with the following amended paragraph:

As having been described in the foregoing, when the moving stage 3 is moved over a distance shorter than desired in the predetermined-distance moving direction and an area of overlapping between adjacent columns is increased even when n is an odd number because the column 60 to be irradiated with the light beam  $i$  times ( $i = 3$ ) is formed, the error in number of times of light beam irradiation is +1. When the moving stage 3 is moved over a distance [shorter] longer than desired in the predetermined-distance moving direction and an area of overlapping between adjacent columns is decreased in the above condition, the error in number of times of light beam irradiation is -1.

Please amend the paragraph beginning on page 44, line 9, with the following amended paragraph:

For example, when  $n = 5$  is set in the method shown in FIG. 20, a region to be irradiated with the light beam four times will take place as shown hatched in FIG. 22A if the moving stage 3 is moved over a distance [shorter] longer than  $3L_2/4$  in the predetermined-distance moving direction after the column 60 is formed. On the other hand, if the moving stage 3 is moved over a distance [longer] shorter than  $3L_2/4$  in the predetermined-distance moving direction, a region to be irradiated with the light beam six times will occur as shown hatched in FIG. 22B. Therefore, the error in number of times of light beam irradiation is  $\pm 1$ .

**AMENDMENTS TO THE DRAWINGS**

Three (3) attached sheets of drawings include changes to Fig. 13, Fig. 20, Fig. 21, Fig. 22A, and Fig. 22B. The changes to these Figures are as follows.

Sheet 1 includes Fig. 13 – Please change reference numerals E/10 to E/5.

Sheet 2 includes Figs. 20 and 21 – Fig. 20 please change reference numeral “ $L_1/2$ ” to  $L_1/4$  – and in Fig. 21 please change reference numeral “ $3 L_2/8$ ” to –  $3 L_1/8$  and “ $3 L_2/4$ ” to --  $3 L_2/8$  --

Sheet 3 includes Figs. 22A and 22B – Fig. 22A please change reference numeral “ $L_1/2$ ” to  $L_1/4$  “ and in Fig. 22B please change reference numeral “ $L_1/2$ ” to  $L_1/4$  ”

Attachment:      Three (3) Replacement sheets